DOCUMENT RESUME

ED 024 819 VT 007 452

By- Moss, Jerome, Jr.; Nelson, Howard F.

Minnesota Coordination Unit for Research and Development in Occupational Education, 1965-1968. Interim Report.

Minnesota Univ., Minneapolis.
Spons Agency- Office of Education (DHEW), Washington, D.C.
Bureau No- BR-5-0097; BR-6-2987
Pub Date Oct 68
Contract- OEC-5-85-120
Grant- OEG-3-7-062987-1593
Note- 20p.
EDRS Price MF-$0.25 HC-$1.10
Descriptors- Administrative Organization, Information Dissemination, *Program Descriptions, Program Development, Program Evaluation, *Research Coordinating Units, Research Needs, Research Projects, *Vocational Education
Identifiers- Minnesota

This document summarizes the first 3 years (June 1965-September 1968) of the Minnesota Research Coordination Unit's operation. Described are: (1) the factors which influenced the evolution of Unit objectives, (2) the organizational structure, personnel and facilities, (3) the Unit activities which were related to its objectives, (4) a subjective evaluation of the effectiveness of Unit activities, and (5) a bibliography of Unit publications. The objectives of the Unit are to (1) facilitate voluntary coordination, (2) stimulate research, (3) provide technical consultation, (4) offer clearinghouse services, (5) provide training and (6) engage in the conduct of research and development activities. (MM)

EDO 24819

C1

INTERIM REPORT
Project Nos. 5-0097 and OE-6-2987
Contract Nos. OE-5-85-120 and
OEG-3-7-062987-1593

MINNESOTA COORDINATION UNIT

FOR RESEARCH AND DEVELOPMENT IN

OCCUPATIONAL EDUCATION, 1965-1968

October, 1968

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

VT007452

9

C1

INTERIM REPORT
Projects Nos. 5-0097 and OE-6-2987
Contract Nos. OE-5-85-120, and
OEG-3-7-062987-1593

MINNESOTA COORDINATION UNIT

FOR RESEARCH AND DEVELOPMENT IN

OCCUPATIONAL EDUCATION, 1965-1968

Jerome Moss, Jr.
Howard F. Nelson

University of Minnesota
Minneapolis, Minnesota

October, 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
Summary	1
History	1
II. METHODS	3
Organization	3
Personnel	5
Facilities	7
III. RESULTS	8
Objective 1	8
Objective 2	9
Objective 3	10
Objective 4	12
IV. CONCLUSIONS AND DISCUSSION	13
V. APPENDICES	15
RCU Publications	15
ERIC Report Resume	17

I. INTRODUCTION

Summary

This report is a summary of the activities of the "Minnesota Research Coordination Unit" since its inception on June 1, 1965 until September 30, 1968. It briefly discusses the history of the Unit, in terms of the influences tending to shape its goals, and presents an overview of Unit organizational structure, personnel, and facilities. A section on "Results" provides an outline of specific Unit activities related to the organizational goals they were presumed to serve. Finally, the effectiveness of the Unit is subjectively assessed, and certain factors are considered which will affect the future course of the Unit.

History

In the Spring of 1965 vocational educators from the University of Minnesota met with personnel of the Vocational Division, Minnesota State Department of Education, to discuss means for implementing a systematic, continuing research and development effort within the state. It was agreed that such an effort was greatly needed, and that the University was the logical place at which to focus that effort.

Consequently, when federal funds became available in May, 1965 to create research coordination units in occupational education, it was immediately viewed as an opportunity to implement the results of prior discussions. Further informal meetings with the State College Board, State Junior College Board, State Department of Education, and the University of Minnesota reaffirmed the desirability of creating a research coordination unit, provided evidence that the four agencies could work together in seeking solutions to educational problems, and confirmed the University as the suitable agency to administer the unit. An application to the U. S. Office of Education, which carried the endorsement of the above four public agencies, was therefore submitted. It called for the establishment of a unit to (a) facilitate voluntary coordination, (b) stimulate, (c) provide technical consultation (d) offer clearinghouse services, (e) provide training, and (f) engage in the conduct of research and development activities.

At the inception of the Unit, on June 1, 1965, it was decided to adopt temporarily a service posture. That is, the Unit would place its major effort in assisting, through stimulation, facilitation and consultation, the research efforts of others, without intervening in an administrative or supervisory fashion between individual researchers and potential funding sources. The Unit therefore attempted to advertise its services, and to assess research needs and research resources in the State. It soon became apparent that the relatively few competent researchers interested in occupational education were already very active, and that operational research for immediate administrative decision-making and normative program development for increasing the scope of and up-dating existing programs were urgently needed.

Since operational research and normative development require close, continuous coordination with state and local administrative and supervisory personnel, it was decided to utilize the limited state funds available to create a Program Planning and Development Section in the Vocational Division to carry out those activities. The PP & D Section, consisting of six full-time professional staff members, works very closely with the Research Branch, Minnesota Department of Employment. The Research Branch has been increasingly active in collecting and analyzing data on employment opportunities, emerging occupational trends, and future job projections for the State and its localities. A separate two-man Evaluation Section was also established in the Vocational Division so that the program development and evaluation functions could be kept reasonably autonomous, while remaining under the direct supervision of the Assistant Commissioner for Vocational Education.

Although the State Junior College Board has not yet been able to allocate a similar amount of manpower, it too assigned responsibility for these same activities to state-level personnel.

During the same period of time the Upper Midwest Regional Educational Laboratory was created, and located in the Twin Cities. It thus provided a mechanism for region-wide stimulation, facilitation and coordination.

In light of these developments, the Unit was forced to reassess its role in the State, the region and the nation. There were obvious important gaps in the State's research-related activities. Research with longer-range payoff and innovative development activities were not receiving adequate attention; the State's need for research training had been demonstrated (and was obviously also of national concern); the dissemination of research-related information was required; and cooperative relationships with UMREL were needed to generally stimulate research and development activity in the State and region. Because of the University's role in the total educational enterprise of the State, its tradition, experience, personnel and resources, the Unit, as part of the University, appeared admirably suited to perform the needed research-related activities. Further, because of the University's long history of involvement with occupational education, the Unit could maintain the necessary coordination with all those offering secondary and post-secondary vocational programs, those providing teacher education and research in education, and the non-educational state agencies planning for the developmental and utilization of human resources.

Thus, the initial thrust of the Unit was revised during its second year of operation. It was not necessary to adopt a new set of objectives, only to change the emphasis and/or interpretation of existing goals. Staff studies of a more basic, methodological nature were begun. In order to provide for appropriate coordination of and a direct means for implementing its research a member of the Program Planning and Development Section and a member of the staff of the State Junior College Board were assigned part-time to the Unit. The importance of the research training function was re-affirmed, and the need to investigate the potential for regional cooperation (through UMREL) was recognized. It became more meaningful (at least temporarily) to think of the Unit's objectives in terms of:

(a) Participating in the conduct of research and the development of innovative curriculums that have potential for major improvements, immediate and/or long range, in occupational education (not to duplicate but to complement the work of the Program Planning and Development Section).

(b) Encouraging, coordinating and conducting training activities designed to increase the number and improve the competence of producers and consumers of occupational education research.

(c) Providing clearinghouse - dissemination services for research-related information to assist research and development efforts.

(d) Stimulating, facilitating and securing the voluntary coordination of research and development activities in occupational education.

Thus, over the first three years of operation, the Unit has retained its original set of goals, but has altered their emphasis and interpretation to reflect emerging conditions in the State and region. The Unit is prepared to make additional changes should they be called for, provided it can bring to bear appropriate expertise.

II. METHODS

Organization

The Unit is located physically on the Minneapolis Campus of the University of Minnesota, and administratively in the College of Education of the University.

Chart 1 presents the formal organizational structure of the Unit.

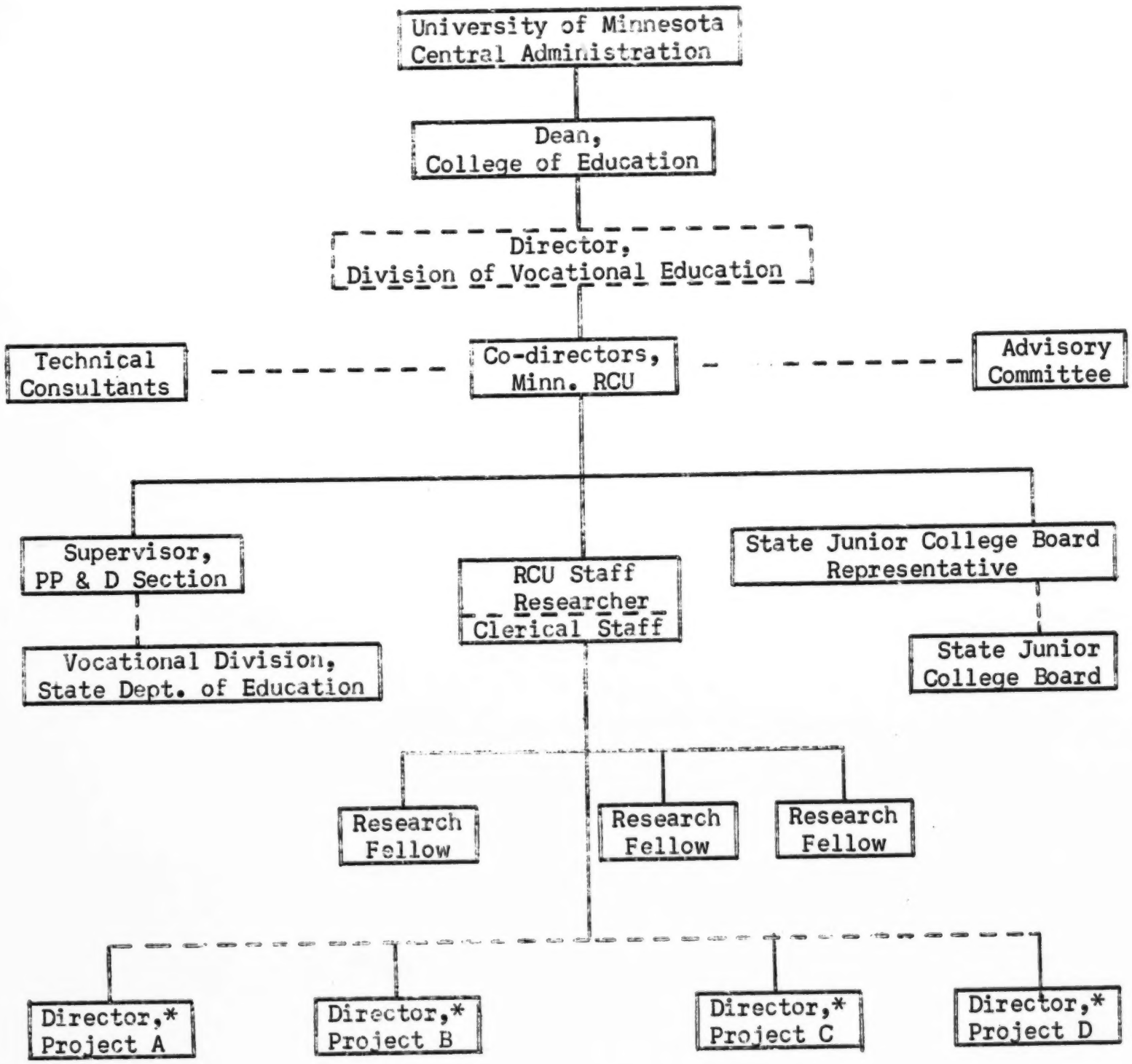
The co-directors are immediately responsible for the administration and operation of the Unit. They report directly to the Dean, College of Education, for personnel and administrative matters, except that in the event a Division of Vocational Education is created within the College, the co-directors will report to the Director of the Division.

Technical consultants, including the possibility of special advisory committees, may be utilized when and as they are needed in the planning and conduct of Unit activities.

An Advisory Committee serves to bring together much of the leadership in the State directly concerned with the problems and conduct of occupational education, with secondary and higher education in general, with occupational and educational research, and with statewide planning for human resources development. The role of the Committee is to recommend policy, suggest and facilitate

Chart 1.

ORGANIZATION CHART



*Separate projects may be coordinated or administered by the Unit.

activities, provide a mechanism for coordinating the relevant operations of all groups involved, and evaluate progress of the Unit. Membership currently consists of the following persons: Director, Upper Midwest Research and Development Council; Director, Upper Midwest Regional Educational Laboratory; Chancellor, State College Board; Chancellor, State Junior College Board; Commissioner of Education, State of Minnesota; Assistant Commissioner for Vocational Education, State of Minnesota; Vice President for Educational Relationships and Development, University of Minnesota; Social Resources Director, State Planning Agency; Dean, College of Education, University of Minnesota; and the two co-directors of the Unit (ex-officio). In addition, the Research Director, Minnesota Department of Employment Security, and the Executive Director, Minnesota Higher Education Coordinating Commission, will be invited to membership.

A very close working relationship among the Program Planning and Development Section of the Vocational Division, State Department of Education, the staff of the State Junior College Board, and the Unit is obviously necessary. Therefore, in addition to higher level representation on the Advisory Committee, the Supervisor, PP & D Section, and a representative of the State Junior College Board, with secretarial assistance, have been assigned part-time to the Unit to insure the requisite liaison and coordination of activities.

University staff members and graduate students employed by the Unit on a part time and/or temporary basis retain their departmental and college affiliations, but are supervised by the co-directors for work pertaining to their Unit assignments. Non-university personnel employed by or assigned to the Unit on a part-time and/or temporary basis (such as the PP & D Section and State Junior College Board representatives) are supervised by the co-directors for work pertaining to their Unit assignments.

Additional clerical and professional personnel, such as those needed to direct special projects, may be employed by the Unit.

Personnel

Co-directors of the Unit are Dr. Jerome Moss, Jr., Professor of Industrial Education, and Dr. Howard F. Nelson, Professor and Chairman, Department of Trade and Industrial Education. Both are (a) full members of the Graduate School, University of Minnesota, (b) members of many standing committees of the College of Education (e.g. Policy and Planning, Vocational and Technical, etc.), (c) active in professional education organizations (e.g. President, American Council on Industrial Arts Teacher Education; Chairman, A.V.A. Research Committee, etc.), (d) directors of separately funded Bureau of Research projects in occupational education, and (e) field readers and consultants to several vocational research agencies and projects.

Three to four research fellows, one of whom was usually full-time and the others part-time, have been employed at any given time. They were selected from among the advanced (Ph.D.) graduate students on the campus. A total of ten different students have been utilized during the three-year period under review, representing the fields of industrial education, sociology, industrial relations, statistics and measurement.

The clerical staff of the Unit, at any given time, has ranged from one full-time secretary to the equivalent of three full-time persons.

Table 1 gives the names, positions, percent times of employment, and dates of employment of the Unit staff between June 1, 1965 and September 30, 1968.

Table 1.

RESEARCH COORDINATION STAFF

NAME	POSITION	% TIME (OR MISC.)	DATES OF EMPLOYMENT
A. Professional			
Howard F. Nelson	Co-director	50%	9/16/65 - 9/30/68
Jerome Moss, Jr.	Co-director	50%	6/6/65 - 9/30/68
Brandon B. Smith	Research Fellow	50%	7/1/65 - 6/15/68
		100%	6/16/68 - 9/30/68
David J. Pucel	Research Fellow	100% 66 2/3%	7/19/65 - 11/30/65 12/1/65 - 1/16/66
Willard Bailey	Research Fellow	100%	1/1/66 - 8/31/66
Bryan Knapp	Research Fellow	50%	1/1/66 - 8/19/66
Marshall Hahn	Research Fellow	50%	6/16/66 - 2/28/67
Editha Jiloca	Research Fellow	50%	9/16/66 - 6/15/67
Frank Pratzner	Research Fellow	100%	9/16/66 - 9/30/68
David Wheeler	Research Fellow	25% 50%	9/15/67 - 6/15/68 6/16/68 - 9/30/68
Melvin E. Johnson	Research Fellow	25%	6/17/68 - 8/24/68
Darrell Heitzman	Research Fellow	Misc.	8/1/68 - 8/15/68
Joseph Malinski	Supervisor, PP & D	25%	3/1/67 - 9/30/68
Howard Bergstrom	State Jr. College Board	25%	3/1/67 - 9/30/68

Continued on next page

Table 1.
Continued from Page 6

NAME	POSITION	% TIME (OR MISC.)	DATES OF EMPLOYMENT
B. Clerical			
Jean Schreiver	Senior Secretary	100%	7/26/65 - 12/10/65
Stella Hultman	Senior Secretary	100%	1/16/66 - 5/24-68
Sharon L. Horihan	Clerk Typist	Misc.	10/26/65 - 9/1/66
Sharon Ann Kemnitz	Clerk Typist	Misc.	11/5/65 - 1/15/66
Barbara Dahms	Clerk Typist	Misc.	9/1/66 - 9/30/66
Geraldine Kennedy	Clerk Typist	50%	10/1/66 - 5/30/67
Hazel Moritz	Clerk Typist	50%	1/25/67 - 2/28/67
Sandra Melzer	Clerk Typist	50%	6/16/67 - 11/30/67
Gail Goulet	Clerk Typist	50%	9/18/67 - 9/30/68
Jean Husing	Clerk Typist	50%	12/18/67 - 3/31/68
Sandra Emmerson	Senior Secretary	100%	5/16/68 - 9/30/68
Cheryl Royce	Clerk Typist	50%	3/14/68 - 9/16/68
Sandra Hyvare	Clerk Typist	Misc.	6/10/68 - 9/30/68
Cynthia Winter	Clerk Typist	100%	7/31/68 - 9/30/68

Facilities

Since its formation, the Unit has been located in three places; with each move the space allocation has increased and the location has become more desirable. The present location is in a relatively new building which houses education personnel. Space is available to accommodate the library, three secretaries, five graduate students, and two, full-time persons.

The Unit's location in and administrative association with the University makes readily accessible many resources which facilitate its activities, such as: CD1604 and CD6600 computer installations; general and specialized libraries; a staff of nationally known teacher educators in all the vocational fields; consultants from education and related disciplines, as well as research specialists; research organizations, including the Human Learning Center, Center for Programmed Instruction, Minnesota Curriculum Development Laboratory, Industrial Relations Center, and Bureau of Field Studies and Surveys. But the greatest resource is graduate students; they not only serve the Unit, but are perhaps its most important beneficiaries.

III. RESULTS

Objective 1

Stimulating, facilitating and securing the voluntary coordination of research and development activities in occupational education.

1. An Advisory Committee has been utilized to (a) suggest priorities for Unit functions and activities, (b) evaluate progress of the Unit, and (c) indicate significant statewide problem areas that deserve investigation. The Committee has also proved to be a useful forum in which members exchange information and ideas relevant to the coordination of occupational education programs in the State.

2. Liaison and coordination has been developed among the operational and research arms of the State Department of Education, the State Junior College Board, and the University of Minnesota. This has been accomplished by (a) assisting in the creation of a Program Planning and Development Section in the Vocational Division, State Department, (b) the appointment of an Assistant Education Director responsible for occupational education research and program development in the junior college system, (c) part-time appointments of the Section Chief and the Assistant Education Director to the Unit, and (d) assignment of Unit staff to work part-time in the PP and D Section.

3. Information about important vocational problem areas in which research should be conducted, about research being conducted in the State, research funds available, procedures for obtaining funds and about Unit services available has been disseminated throughout the State by means of (a) mailed publications (1*, 2, 3, 4, 8, 11, 22), (b) seven research meetings held at various locations throughout the State, to which potentially interested persons were invited, (c) individual meetings with research-oriented organizations at the University of Minnesota, and (d) speeches at and participation in professional meetings in the State, and (e) graduate seminars in various departments of the University.

---

*Numbers in parentheses refer to numbered items in the attached bibliography of Minnesota Research Coordination Unit publications.

4. The human resources in the State for occupational education research have been assessed through the conduct of two studies which identified (a) persons with interest in research and/or research training and their present level of research competence, and (b) the attitudes of school administrators toward facilitating the occupational education research efforts of their staff. Both studies were published as one monograph (10) and distributed to other Research Coordination Units.

5. A study to determine which of three mail techniques can best stimulate interest in the conduct of research was completed (9). The report was sent to all Research Coordination Units.

6. The Unit has received approximately $19,500 from the Upper Midwest Regional Educational Laboratory for four projects. These were designed to stimulate and coordinate the research-related and teacher education activities of vocational educators in the five-state region: (a) A two-day meeting to formulate recommendations concerning the operation of UMREL relative to its occupational education activities; (b) a series of meetings to identify significant problem areas in the region and to prepare a proposal for the conduct of one of those problem areas (12, 14); (c) a three-day conference on "Developing Innovative Vocational-Technical Teacher Education Programs" (the report is now being prepared for publication); and (d) a three-day conference to define the "developmental process" and to begin to identify the steps in the process (report now being prepared).

7. A conference on curriculum innovations for industrial arts teachers in the State was partially supported by the Unit.

8. Technical consultation has been provided upon request to approximately one hundred seventy-five individuals and agencies in the State.

9. Staff members have acted as consultants to a variety of research projects and organizations throughout the nation, and have been involved in professional activities pertinent to the stimulation, facilitation and coordination of research. The following are illustrative of those activities: (a) President, American Council, Industrial Arts Teacher Educators; (b) Chairman, AVA Research Committee; (c) Member, Research Subcommittee, National Manpower Advisory Committee; (d) field reader, Bureau of Research, USOE; (e) editor, Journal of Industrial Arts Teacher Education; and (f) editor, October 1968 issue, Review of Educational Research; and (g) Vice President, Board of Directors, Occupational Training Center (St. Paul).

Objective 2

Providing clearinghouse-dissemination services for research-related information to assist research and development efforts.

1. An occupational education research library has been developed. At present it consists of about 3,500 items, including 1,500 bound volumes, microfilm, microfiche and vertical file items. A microfiche reader-printer and two other microfiche readers are available. The library can be used by anyone during regular working hours, five days per week; materials also can be borrowed. The card catalogue is now being computerized to facilitate search and retrieval; we estimate that the cost per search will be less than $1.00.

2. Mailing lists have been prepared (and have been revised twice to date) to cover (a) all persons in the State potentially interested in occupational education research or research findings (5,500), and (b) selected groups in the nation (State Department personnel, research organizations, teacher educators, etc.).

3. The following kinds of materials have been published by the Research Coordination Unit and mailed to various groups in the State and nation: (a) Three "Technical Reports" (11, 17, 20) directed to researchers; (b) seven pieces (1, 2, 4, 5, 6, 8, 13) dealing with important researchable problems, the availability of research funds and research training opportunities, and Research Coordination Unit services; (c) two bibliographies (3, 16) of relevant studies completed in Minnesota (plus a national survey of doctoral dissertations conducted in the field since 1965, published in the Fall 1967, Winter 1967, Spring 1968 and Summer 1968 issues of the Journal of Industrial Teacher Education); (d) three reviews of research (18, 21, 22) in specific problem areas (with two additional reviews now in draft form); (e) five reports of individual studies (7, 9, 10, 15, 19) (with five more in the report writing or duplicating stage); and (f) two (12, 14) conference reports (with two more now at the printers).

4. The co-directors and other staff members of the Unit have engaged in a variety of activities designed to disseminate research-related information. For example, staff members serve (a) on the advisory committee to "Research Visibility" (reported monthly in the AV Journal), (b) on the ERIC Advisory Committee (for the vocational and technical clearinghouse), (c) as editor of the Journal of Industrial Teacher Education, and (f) as presenters, chairmen, and program chairmen at many state, regional and national research meetings, e.g. AVA, AIAA.

Objective 3

Encouraging, coordinating and conducting training activities designed to increase the number and improve the competence of producers and consumers of occupational education research.

1. A seven-week summer institute for preparing researchers in occupational education was conducted in 1966 (6). Thirty persons in vocational and practical arts education were selected from applicants from North Dakota,

South Dakota, and Minnesota. The institute, supported by funds from the USOE, Division of Research Training and Dissemination, was held for the purpose of training "beginners" in research methodology and tools. One tangible outcome of the institute was the production of thirty research proposals.

2. The USOE, Division of Research Training is currently supporting six graduate fellows in a three-year Ph.D. program designed to prepare researchers in occupational education (5). The proposal was submitted, and the program is administered, by the Unit on behalf of all five Vocational Departments in the College of Education. The Unit provides one opportunity for the fellows to receive research practicum experiences as a part of their total training program. The current contract expires in September 1969, at the end of the three-year period. A proposal to continue the program with new fellows for an additional three-year period has been submitted.

3. A proposal has been developed and submitted to the Bureau of Education Personnel Development, USOE, requesting funds to support fifteen fellows over a five-year period in a Ph.D. Program. The program is designed to prepare research-evaluators in vocational, technical, and practical arts education for employment in state departments, metropolitan systems, consortia of area schools, etc.

4. In addition to the six research fellows noted in item 2 above, nine graduate students have been employed by the Unit since its formation. The consultation, dissemination, research and instructional activities in which they have engaged has resulted in an appreciable improvement in their research competencies; the long-term influence on them (as well as the salutary effect upon other graduate students in the vocational departments) may be even more significant.

5. The Unit has co-sponsored (with other groups in the College of Education) two invitational seminars in advanced research training. Both seminars were two-three days long and dealt with various applications of regression models to the design and analysis of educational research. Instructors at these seminars were Joe Ward, Jr., Chief of Computer Analysis Branch, Air Force Systems Command, and James Terwilliger, Professor of Educational Psychology, University of Minnesota (formerly at E.T.S.)

6. The co-directors have engaged in many related activities that served the training objective of the Unit: (a) As chairman of the AVA Research Committee, a co-director was partially responsibile for initiating, planning and conducting two series of national research training programs (five, four-day sessions in 1966, and four, two-day presessions to the 1967 AVA Convention) supported by the USOE for people in the field; in addition, six, three-day presessions to the 1968 AVA Convention will be held, and it appears as though four, four-day vocational research training programs will be sponsored by the USOE in 1969. (b) Co-directors have served as staff and resource persons at three different industrial arts (NDEA)

summer institutes, and at four business education research training conferences. (c) They conduct research-related graduate classes for students in industrial, business and distributive education, and a bi-weekly research seminar for graduate students in residence. (d) By attending AERA conventions and AERA pre-sessions they have attempted to improve their own research competencies.

Objective 4

Participating in the conduct of research and the development of innovative curriculums that have potential for major improvements, immediate and/or long range, in occupational education.

1. In addition to the conduct of three surveys (which resulted in the publication of bibliographies (3, 16, 22), three staff studies were completed and disseminated as two Unit publications (9, 10). One of the studies dealt with a comparison of mail-techniques for stimulating research interest, and the other two studies assessed the availability of human resources for research in the State.

2. Four other staff studies are currently in progress: (a) The development and testing of an empirical procedure for identifying and organizing the technical concepts possessed by samples of workmen; (b) the relative effectiveness of the live lecture-discussion versus the video-tape with discussion methods of presenting an initial twelve clock hours of teacher training content; (c) the relationship among occupational needs, preferences and perceptions, and the occupational aspirations and expectations of high school seniors; and (d) the development of a system for the periodic evaluation of vocational programs.

3. Five studies, partially supported by the Unit, have been completed. Only one of these has been (or will be) published by us; the remainder have been sent to ERIC: (a) Variables related to MDTA trainee employment success (19); (b) the effect of physical maturity and intelligence on the manipulative performance of junior high school students; (c) the influence of creativity on the effectiveness of two methods of instruction; (d) discriminating between the conceptual structures of flexible and inflexible radio and television repairmen; and (e) the evaluation of an undergraduate industrial teacher education curriculum (follow-up study).

4. Six studies, partially supported by the Unit, are currently in process: (a) Predicting academic success in an undergraduate industrial teacher education program; (b) comparing the technical conceptual structures of radio-TV and radio communications repairmen; (c) ascertaining the influence of senior high school industrial arts experience on persistence in subsequent vocational programs; (d) studying the effect (quantitative) of the area vocational technical schools in Minnesota; (e) determining the correlates of leadership decision patterns of high school students; and (f) developing self-evaluative systems for local vocational programs (Michigan State University project).

5. Three studies, involving Unit personnel but not Unit funds, were completed: (a) Measuring the creative abilities of junior high school industrial arts students (University of Minnesota funding); (b) a plan for a region-wide study to formulate objectives for vocational education (UMREL funding); and (c) the pre-vocational effectiveness of senior high school industrial arts (7) (USOE funding).

6. Two additional studies, involving Unit personnel but not Unit funds, are in progress: (a) The evaluation of a summer research training institute (USOE funding); and (b) the "area school selection project" involving approximately 20,000 students (USOE funding).

IV. CONCLUSIONS AND DISCUSSION

The Advisory Committee has, on several occasions, reviewed the Unit's activities in terms of its purposes, and re-examined those purposes in light of changed conditions in the State. On two of those occasions (June 10, 1966, April 10, 1968) it has formally reported to the U. S. Office of Education that (a) the Unit has made satisfactory progress to its previously established purposes, and that it has served a very useful role in the State, and (b) proposed changes in emphasis in the Unit's objectives were consistent with current and anticipated needs in the State, and that suggested future activities were appropriate to those objectives.

From the co-directors perspective, the Unit has had reasonable success during the past three years in fulfilling its mission. Despite the fact that extremely limited funds were available through the State Department to support local research and development in occupational education, which severely limited the kinds of stimulative and coordinative activities possible, surveys by the Unit indicated an increase in research activity in the State since the Unit's formation. Nearly one hundred more studies were conducted in the year and a half after the Unit's formation than in the previous three years. While this increase cannot be assumed directly attributable to the Unit's efforts, there is probably some relationship between the two. In addition, nearly $20,000 was secured from the Upper Midwest Regional Educational Laboratory to stimulate and coordinate research-related activity on a regional basis.

The Unit's dissemination efforts have made it as well known in the nation as in the State. Its reviews of research and technical report series have been very favorably received. But despite national recognition, dissemination within the State has not been adequate. The problem is to decide how and what to dissiminate. While present efforts to computerize our library card catalog will facilitate requests for individual searches, the basic question of how to get relevant information to all the various groups who should have it has not yet been solved.

Research training has been a concommitant activity, a natural outgrowth, of all other Unit activities. By taking advantage of its University affiliation and by supplementing its own efforts with nearly $131,000 of federal funds, the Unit has succeeded in increasing the statewide (and national) production of competent researchers.

Finally, by using only its own funds, the Unit has fully or partially supported fourteen completed studies and twelve which are currently in progress. This effort was begun relatively late in the three-year period, is coordinated with State Department and Junior College efforts, is focused upon research problems not ordinarily undertaken by vocational education practitioners, and does not reflect the large number of projects for which technical consultation has been provided.

The Unit has already been approved and funded for continuation for at least one year after October 1, 1968. But new factors, which will undoubtedly influence long-range Unit operation, are already evident. The Vocational Amendments of 1968, which alters the source of Unit funding and makes certain activities possible, may well affect some of the Unit's objectives. The College of Education is creating a Division of Vocational and Technical Education, and making the Unit a permanent part of the Division; this consolidation could influence Unit activities. It is too early to anticipate the exact nature of potential changes in the Unit, but it seems reasonable to utilize the following criterion for undertaking changes: In light of the capabilities of a University-based Unit, will the change more efficiently satisfy the current and anticipated research-related needs of the State?

Appendix A

MINNESOTA RESEARCH COORDINATION UNIT PUBLICATIONS

1. Introducing the Minnesota Research Coordination Unit in Occupational Education, 1965.

2. Funds Available for Research in Occupational Education, 1965.

3. Bibliography of Recent Studies in Occupational Education in Minnesota, 1966. 11 p.

4. "Some Occupational Education Problem Areas in Minnesota", 1966. 2 p.

5. Graduate Fellowship Announcement, 1966.

6. Summer Training Institute for Researchers in Occupational Education (Announcement), 1966.

7. Moss, Jerome, Jr. The Influence of Industrial Arts Experience on Grades Earned in Post-High School Trade and Technical Curriculums, 1966. 31 p.

8. Research and Development Funds Available from the U. S. Office of Education, 1966.

9. Bailey, W. F. and Moss, Jerome, Jr. A Comparison of Mail-Techniques for Stimulating Interest in Occupational Education Research, 1966. 12 p.

10. Pucel, David J., et. al. Estimating the Human Resources for Research in Occupational Education in Minnesota, 1966. 17 p.

11. Technical Report No. 1.: Sources of Information for Preparation of Research Proposals, 1967. 19 p.

12. Moss, Jerome, Jr. Report of a Five-State Occupational Education Research and Development Planning Conference, 1967. 8 p.

13. Final Report. Project No. 5-0097, Contract No. OE-5-85-120, March, 1967. 19 p.

14. Moss, Jerome, Jr. and Nelson, Howard F. Planning for a Cooperative Region-wide Study in Occupational Education, July 1967. 24 p.

15. Pucel, David J., and Nelson, Howard F. Area School Student Selection Project: A Preliminary Look at the Test Battery Data, July 1, 1967. 11 p.

(Appendix A - Continued)

16. Jiloca, Editha L. Bibliography of Studies in Occupational Education Conducted in Minnesota: 1965-67. 26 p.

17. Technical Report No. 2: Selecting and Developing a Research Problem, September, 1967. 14 p.

18. Moss, Jerome, Jr. Review of Research in Vocational and Technical Teacher Education, September, 1967. 39 p.

19. Pucel, David J. Variables Related to MDTA Trainee Employment Success in Minnesota, 1968. 33 p.

20. Moss, Jerome, Jr. Technical Report No. 3: The Evaluation of Occupational Education Programs, September, 1968. 22 p.

21. Hahn, Marshall. Review of Research on Creativity, September, 1968. 25 p.

22. Pratzner, Frank C., and Faurot, Lyle. Summary of Studies Conducted in Minnesota, 1965-67, September, 1968. 26 p.

OE 6000 (REV. 9-66)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

(TOP)

ERIC ACCESSION NO.			
CLEARINGHOUSE ACCESSION NUMBER	RESUME DATE	P.A.	T.A.
001	10 -28 -68		

IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒

ERIC REPRODUCTION RELEASE? YES ☒ NO ☐

100 TITLE
101 Interim Report: Minnesota Coordination Unit for Research and
102 Development in Occupational Education, 1965-1968
103

200 PERSONAL AUTHOR(S)
Moss, Jerome, Jr., and Nelson, Howard F.

300 INSTITUTION (SOURCE) University of Minnesota, Minneapolis, Minnesota, College of Education — SOURCE CODE

310 REPORT/SERIES NO.

OTHER SOURCE — SOURCE CODE

320

330 OTHER REPORT NO.

OTHER SOURCE — SOURCE CODE

340

350 OTHER REPORT NO.

400 PUB'L. DATE 10 - 28 - 68 | CONTRACT/GRANT NUMBER OEG-3-7-062987-1593

PAGINATION, ETC.

500 16 pp.
501

RETRIEVAL TERMS

600
601
602
603
604
605
606

IDENTIFIERS

607

ABSTRACT

800 The Interim Report summarizes the first three years (June 1965 - September
801 1968) of the Minnesota Research Coordination Unit's operation. It
802 describes (a) the factors which influenced the evolution of Unit objectives,
803 (b) the organizational structure, personnel and facilities of the Unit,
804 (c) the Unit activities which were presumed to relate to its objectives,
805 (d) a subjective evaluation of the effectiveness of Unit activities, and
806 (e) a bibliography of Unit publications.
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822